DOCUMENT RESUME

ED 303 127 HE 022 156

AUTHOR Simon, Kathleen
TITLE Making Connections: The Need for an Interdisciplinary Curriculum.
PUB DATE 88
NOTE 14p.
PUB TYPE Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *College Curriculum; *Curriculum Development; Educational Development; Higher Education; *Holistic Approach; Integrated Activities; *Interdisciplinary Approach; Perspective Taking; Planning; Undergraduate Study

ABSTRACT

Based on the Carnegie Foundation study of baccalaureate programs, which found that many colleges are confused as to their mission and are fragmenting the disciplines into smaller and smaller pieces, a case is made for revising the higher education curriculum. Coursework is fragmented because of the growth of specialized fields within the disciplines and because of the increasing interest of students toward specific careers. Faculty members now focus on single, tiny aspects of their disciplines. Though experts agree that the curriculum should be integrated, narrow departmental concerns have sometimes prevented this from happening. The over-emphasis on professional preparation has led many colleges to see students as consumers and education as the product to be sold. Interdisciplinary education is important because it promotes many intellectual skills and integrates knowledge, allowing students to acquire a more authentic view of life and begin to understand they are members of a human community. This sense of community seems to be lacking in many students who focus totally on their own disciplines and careers. Recently, many small colleges have tried to change their curricula by offering courses that provide an interdisciplinary focus with a holistic approach to knowledge. Some of the goals that are part of this phase of change are clarifying values, improving skills, making interdisciplinary linkages, and broadening the student's perspective through the study of women, minorities, and the disadvantaged. Interdisciplinary programs are now offered in 49 states. Contains 20 references. (Author/SM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED303127

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Kathleen Simon

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

Making Connections: The Need for An Interdisciplinary Curriculum

Although most students enter college expecting the school to tell them what an educated person should know, the Carnegie Foundation study of baccalaureate programs found that many colleges are confused as to their mission and are fragmenting the disciplines into smaller and smaller pieces. Coursework is fragmented because of the growth of specialized fields within the disciplines and because of the increasing interest of students toward specific careers. Faculty members who once taught a wide range of courses within their field now often focus on one tiny aspect of that discipline: Although many experts agree that the curriculum should be integrated, narrow departmental concerns have sometimes prevented this from happening.

However, quite a few colleges have recently attempted to change their curricula by offering courses that provide an interdisciplinary focus--a holistic approach to knowledge that looks at issues from many perspectives. Interdisciplinary education is important because it promotes intellectual skills such as deductive reasoning, analysis, and synthesis. It also offers students a more authentic view of life and teaches them that they are not just autonomous individuals but are also members of a larger community. Ninety-five percent of America's colleges and universities have either recently made or now making changes in their curricula, and interdisciplinary programs have been implemented in forty-nine states at every level--from community colleges to the most prestigious universities.

HE 022 152

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Making Connections: The Need for an Interdisciplinary Curriculum

Kathleen Simon

According to Theodore Greene, "the goal of education is to prepare each individual . . . to live well in his society and in the universe in which he finds himself; that that educational process is best which advances us most efficiently towards this goal; and that that academic community is best which best initiates and sustains this educational process" (cited in Clausen, et. a., 1956, p. 40). David Savage believes that most students enter a college expecting that its leaders have a "clear vision of what is worth knowing and what is important in our heritage that all persons should know" (cited in "Report Solicits," 1987, p. 6-S). Both of these statements are based on the assumption that the college or university should have a clear understanding of its goals; however, the Carnegie Foundation study of baccalaureate programs throughout the country concluded that many colleges have "lost their sense of purpose," are "confused about their mission," and are fragmenting the disciplines into "smaller and smaller pieces" (Boyer, 1987, p. 3). As a result of this fragmentation, many educators fear that students are leaving college as "well-trained specialists" but not as "well-educated people" (Kockelmans, 1979, p. 123).

The beginnings of this narrow focus on the disciplines dates back to the middle of the nineteenth century when university faculty began to organize along disciplinary lines because of the proliferation of new fields of study. For example, within the social sciences there developed the fields of economics, psychology, sociology, anthropology, political science, etc., while the humanities were broken down into English, speech,

religious studies, philosophy, etc. (Hausman, 1979). In the past instructors were expected to teach courses that ranged over the entire area of their fields, but they are now "thought to be able to offer respectable courses" only if they cover "one, sometimes tiny, area of their field" (Katz, 1987, p. 54). French believes that faculty no longer see their specialities as having any "common ancestors," and that the relationships of one course to another are seldom, if ever, pointed out (1956, p. ix).

Besides the proliferation of programs, coursework is often fragmented because of the increasing emphasis on careerism. Many students and their parents approach higher education with "dollar signs in their eyes" (Clausen, et. al., 1956, p. 39) and are only concerned with how they will use a particular course of study to make money once they graduate. As a result, schools frequently offer programs which have a dominating occupational emphasis. Boyer believes that colleges today are "scrambling for students and are driven by marketplace demands" (1987, p. 3).

This over-emphasis on professional preparation has led many colleges to see students as consumers and education as a product to be sold ("Report Solicits," 1987). Boyer contends that the baccalaureate experience is "divided into two separate worlds--general and specialized education. Students see general education as something 'to get out of the way' . . . a medicine, a dose of something wholly unrelated to their major" (cited in Marchese, 1986, p. 12). The result of this has been a "narrow, specialized education, both academic and vocational . . . into a series of separate and isolated fields, each autonomous and presided over by a group of narrow specialists" (Kavaloski, 1979, p. 225).

Even though many experts realize the need to integrate knowledge, faculty concerns often prevent this from being done. Boyer believes that the curriculum is controlled by the academic departments, courses are loosely related or not related at all; and "narrow departmentalization divides the campus" (1987, p. 66). Bok contends that "professors are among the most independent of all professionals and guard their autonomy closely" (1986, p 23). Heller states that changing the present specialized curriculum involves "equal doses of academic politics and educational philosophy" and that change is usually stalled by "completing interests" (1988b, p. A12). As W. H. Newell (1981) points out, faculty members are usually under pressure to expand their expertise in their discipline in order to get promotion and tenure, and this pressure prevents many of them from trying to make their courses more interdisciplinary. In his controversial book, The Closing of the American Mind, Alan Bloom gives what he considers to be the results of the growing narrowness of many college curricula:

> Each department or great division of the university makes a pitch for itself, and each offers a course of study that will make the student an initiate . . . . They do not relate to one another . . . .They are competing and contradictory without being aware of it . . . . Most professors are specialists, concerned only with their own fields, interested in the advancement of those fields in their own terms. . . . So the student must navigate among a collection of carnival barkers, each trying to lure him into a particular sideshow (1987, p. 339).

L. J. Newell believes that the preoccupation with "covering the intellectual territory of the disciplines" often results in discouraging rigorous critical thinking (1988, p. 4). Boyer states that because "students move from one narrow department requirement to another" they rarely discover connections between their courses. He believes that students must learn to "go beyond their separate interests and gain a more integrated view of knowledge" (1987, p. 90). However, attempts at integration through interdisciplinary programs often meet with great resistance from many faculty. As Heller points out, American studies, an interdisciplinary approach which combines English and history, has "wrestled with questions of trendiness, lack of intellectual rigor, and blurry methodologies" (1988a, p. A4). Newell and Green contend that some faculty view the interdisciplinary program with skepticism because they feel it has little substance and what substance it does have "merely duplicates the offerings of disciplinary departments." These authors feel that part of the faculty criticism results from "protection of 'turf'" but that part of it is justified since some courses that claim to be interdisciplinary are "academic froth, or merely serial presentations of disciplinary material" (1982, p. 23).

The concept of interdisciplinarity and the controversy over its meaning and function originated fairly recently. Some of the earliest debates occurred in this country in the 1930's at the University of Chicago. However, in one sense the term may be applied to very early institutions of formal education because since the time of Plato's academy, attention has been given to devising educational systems that include interdependent as well as independent fields of study (Hausman, 1979).

W. H. Newell points out that there is no generally accepted definition of interdisciplinary studies available, but that most discussions of the subject are based on the presumptions that it builds on the disciplines but that it "goes beyond the disciplines" and involves "some sort of synthesis or integration" (1981, p. 2). He sees it as a holistic approach to knowledge, a process that starts with a question that cannot be answered by using just one discipline. The question is then "reformulated more narrowly by each discipline so that the characteristic concepts, theories, and method of that discipline may be brought to bear on the question. It is the set of disciplinary answers to these reformulated questions which must be reconciled and integrated in order to provide an interdisciplinary answer to the original question." It is only when consensus can be reached on some such definition that the prospects look good for the development of strong interdisciplinary courses (Newell, 1981, p. 35). Kavaloski also defines interdisciplinary education as an "integrative" learning experience, one that encourages the student to perceive the various components of human knowledge within some larger holistic framework" (1979, p. 224). Like Newell, Boyer believes that students should look at issues not from one perspective but from many. He feels that each major should be examined by asking three essential questions: What is its "history and traditions," its "social and economic implications," and its "ethical and moral issues" (Boyer, 1987, p. 110). Newell and Greene argue that questions phrased in the technical language of a discipline are usually limited to treatment by that discipline but that "many, if not most, questions phrased in everyday language are properly interdisciplinary" (1982, p. 25).

Interdisciplinary education is important because it promotes many intellectual skills. One must reason deductively in order to identify the

disciplinary assumptions that underlie a theory and then reason by analogy to see how one idea from one discipline applies to another. One must then synthesize the information and as Newell and Greene point out, synthesis is "one of the higher order skills in Bloom's taxonomy, . . . one of the few educational products which students retain after leaving college" (1982, p. 29). Gross believes that education in the eighties "must perform an integrative function for society . . . . No discipline can exist in isolation any longer. The successful student nurse must know not only basic science but business management and health care law, and have a command of communication skills. The engineering student must be aware of the ethical implications of modern technology as well as the fundamental sciences, and he must have command of communication skills" (1982, p. XIV).

Boyer hopes that by integrating knowledge, students will acquire a more authentic view of life and begin to understand that they "are not only autonomous individuals but also members of a human community" (1987, p. 99). This sense of community seems to be lacking in many students who focus totally on their own disciplines, their own careers. In response to the book When Dreams and Heroes Died, 80-90% of students felt that while "the world was going to hell in a handbasket" their own futures were "rosy" because they believed that the world "out there" was somehow set apart--"divorced from their personal lives" (Parker, 1987, p. 2). Parker contends that students must learn "relatedness . . . not only to people, but to the events of history, to nature, to the world of ideas, and . . . to things of the spirit" (p. 2). If taught properly, an interdisciplinary curriculum should enable students to see these connections. Boyer proposes that all students be required to do volunteer work in the community or at the college so that

they will realize that they are "members of a larger community to which they are accountable" (1987, p. 218).

Although there remains resistance to massive change in course offerings, the American Council on Education's most recent report on campus trends states that ninety-five percent of America's colleges have either recently made or are now making changes in the curriculum (Heller, 1987, p. A28). According to Heller, three fourths of the institutions that have reviewed their curricula have developed new general-education requirements which emphasize mathematical, computer, and writing skills. The following goals are part of the latest phase of changes:

> Making interdisciplinary linkages.
>
> Improving skills, especially writing, critical thinking, and foreign language proficiency.
>
> Clarifying values, especially as represented by courses with an ethical component.
>
> Broadening the student's perspective, through the study of women, minorities, and the disadvantaged, and by including international viewpoints (1987, pp. A28 & A29).

Implementing these changes will not be easy. Faculty members must first come together and agree upon what an educated person needs to know. They must then devise a curriculum that "balances the needs of individual schools and departments," find and reward faculty members "interested in teaching students who may not go on to major in a given field" and develop courses that "work in sequence and are linked, given space and time constraints and students' desire to get their general education out of the way early" (Heller, 1988b, p. A13).

However, even with these problems, interdisciplinary programs are being offered in forty-nine of the fifty states. Although some of these are taught at such prestigious institutions as Brown, Kenyon, M.I.T., Stanford, and Vassar, the majority are found in state colleges and universities and community colleges (W. H. Newell, 1988, p. 10). At the University of New Mexico engineering students are studying catastrophic failures of man-made structures (such as the space shuttle disaster). The course is taught not only by professors of engineering, architecture, medicine and sociology, but also survivors of man-made disasters. At the University of Colorado, students read such works as the Horatio Alger stories and Death of a Salesman in a "Finance and American Literature" course which is taught by business and English professors and business executives. At Syracuse University doctors, lawyers, and professors from several fields lecture on a course in ethical choices called "Professionals in American Society." At the University of Hartford entering students will be required to take four courses in a new curriculum organized around five areas and emphasizing "written communication" and "values clarification." Courses have such titles as "Hunger: Problems of Scarcity and Choice" and "The Adult Journey: A Search for Meaning", and professors who teach these classes are required to show that they are making connections across the disciplines (Heller, 1987, pp. A30, A34).

Although these examples have been enacted very recently, one program that has been in operation since the 1970's is that of Western College at Ohio's Miami University. This program includes a four-year sequence of team-taught interdisciplinary seminars in the humanities, social sciences, and natural sciences and is taught by a faculty who represent eleven disciplines and who collaborate on the development of

new courses (Newell & Greene, 1982). W. H. Newell, teacher in the program and head of the Association of Integrative Studies, states that while the development of Miami's program was time-consuming and difficult, it has been successful in integrating the disciplines. For example, a social science class might split into subgroups and each study a different disciplinary treatment of poverty. Then the groups come together to argue how best to understand the causes and cures of poverty, acquainting other students with each discipline's perspective. Another class might look at prejudice from the perspectives of psychology, social psychology, sociology, economics, legal studies, and philosophy (1981).

Throughout the nation there is a renewed interest in higher education. Colleges, universities, foundations, and organizations "of every patch and hue" have rediscovered the undergraduate curriculum "with an enthusiasm virtually unparalleled in our history" ("Report Solicits," 1987, pp. 1-5). Boyer, who is at least partly responsible for calling attention to the problems in the curriculum, is very pleased by this nationwide interest: "Measured by sheer numbers, the degree of reform is remarkable. I have sensed more intense and constructive debate about undergraduate education than I've seen in perhaps three decades" (cited in Heller, 1987, A28). However, although progress is being made, there is still work to be done before the nation's colleges and universities can say their programs are successful in fulfilling the guidelines set forth in the Carnegie Foundation Study:

> What bothers me is that, in an era that glorifies self-interest, the holistic vision is too often unenlightened by the other-regarding values that progressive education provided for so many students in the preceding generation. Certainly there

remain programs that do leaven interdisciplinary studies with such values; but the majority of the general-education and honors programs we surveyed seem to content themselves with, at most, thinking critically and explicitly *about* values. Most make little systematic effort to *inculcate* values commensurate to the interdisciplinary problems they study. So we educate a generation that will have the breadth of vision to comprehend complex societal problems, and the disciplinary skills to try to solve them, but will that generation have the moral judgment to solve them wisely? (W. H. Newell, 1988, p. 12).

Reference List

Bok, D. (1986). Toward higher learning: assessment outcomes. Change, 18, 18-33.

Bloom, A. (1987). The closing of the American mind. New York: Simon and Schuster.

Boyer, E. L. (1987). College: The undergraduate experience in America. New York: Harper & Row.

Clausen, C., et. al. (1956). Integration in contemporary education. In H. Hong (Ed.), Integration in the Christian liberal arts college (pp. 37-61). Northfield, Minnesota: St. Olaf College Press.

French, S. J. (1956) Forward. In H. Hong (Ed.), Integration in the Christian liberal arts college (pp. vii-xi). Northfield, Minnesota: St. Olaf College Press.

Gross, T. L. (1982). Introduction. In S. H. Dill (Ed.), Integrated Studies (pp. xiii-xvi). Washington, D.C.: University Press of America.

Hausman, C. R. (1979). Introduction: Disciplinarity or interdisciplinarity? In J. J. Kockelmans (Ed.), Interdisciplinarity and higher education (pp. 1-10). University Park: Pennsylvania State University Press.

Heller, S. (1988a, September 7). A home for eclectic interdisciplinary research, American studies may be victim of success. The Chronicle of Higher Education, pp. A4-A6).

Heller, S. (1987, September 2). A new wave of curricular reform: Connections between disciplines. The Chronicle of Higher Education, pp. A28-30, 34.

Heller, S. (1988b, September 7). Universities grapple with academic politics as they strive to change their curricula. The Chronicle of Higher Education, pp. A12-A16.

Katz, J. (1987). Is liberal education possible? Thoughts on making it so. Perspectives, 17, 54-59.

Kavaloski, V. C. (1979). Interdisciplinary education and humanisitic aspiration: A critical reflection. In J. J. Kockelmans (Ed.), Interdisciplinarity and Higher Education (pp. 224-243). University Park: Pennsylvania State University Press.

Kockelmans, J. J. (Ed.). (1979). Interdisciplinarity and higher education. University Park: Pennsylvania State University Press.

Marchese, T. J. (1986). College: Raising a new vision. Change, 18, 10-17.

Newell, L. J. (1988, February). What makes a difference in students' liberal education? AGLS Newsletter, 4.

Newell, W. H. (1981). Interdisciplinary curriculum development in the 1970s: The Paracollege at St. Olaf and the Western College program at Miami University. Unpublished manuscript.

Newell, W. H. (1988). Interdisciplinary studies are alive and well: A status report. AAHE Bulletin, 30, 10-12.

Newell, W. H. & Greene, W. H. (1982). Defining and teaching interdisciplinary studies. Improving College and University Teaching, 30, 24-30.

Parker, P. (1987, March). A new view of knowledge. Paper presented at the meeting of the American Association of Higher Education, Chicago, Il.

Report solicits renewed vigor in curriculum. (1987, February). On Campus. (Available from Ohio State University, Columbus, Ohio).